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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,749	01/10/2002	Kevin B. Stanton	PW 024 9725 P12817	8402

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Pillsbury Winthrop LLP  
Intellectual Property Group  
Suite 2800  
725 S. Figueroa Street  
Los Angeles, CA 90017-5406

EXAMINER

TIV, BACKHEAN

ART UNIT	PAPER NUMBER
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2151

DATE MAILED: 01/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/044,749	STANTON, KEVIN B.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Backhean Tiv	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2005.
- 2a) ☒ This action is **FINAL**.      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1,4-7,10-12,14,16,17,21-23,25,26,30 and 31 is/are pending in the application.
- 4a) Of the above claim(s) 2,3,8,9,13,15,18-20,24 and 27-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-7,10-12,14,16,17,21-23,25,26,30 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Detailed Action***

Claims 1,4-7,10-12,14,16,17,21-23,25,26,30,31 are pending in this application.  
Claims 2,3,8,9,13,15,18-20,24,27-29 have been cancelled. Claims 1,7,14,23 have been amended. This is a response to the amendment filed on 10/17/05.

***Claim Objections***

Claim 1 is objected to because of the following informalities:

As per claim 1, recites, "from the the detector", there should only be one "the".

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4-6,7,10-12,14,16,17,21-23,25,26,30,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,438,128 issued to Kashyap in view of US 6,735,201 issued to Mahajan et al.(Mahajan).

As per claims 1,7,14,16,17,23,25,26 Kashyap teaches a network system,  
comprising:

an Ethernet node(Fig.2, col.4, lines 5-67, col.5, lines 5-15);

an Ethernet switch(Fig.2, col.4, lines 5-67, col.5, lines 5-15);

a first InfiniBand node to transmit a data packet(Fig.2, col.4, lines 5-67, col.5, lines 5-15); and

an InfiniBand switch to receive the data packet from the first Infiniband node and to transmit the data packet(Fig.2, col.3, line 16, col.5, lines 5-15, 44-45); and

a remote virtual network interface, the remote virtual network interface including an Ethernet receiving element connected to the Ethernet switch(Fig.2, col.4, lines 5-67, col.5, lines 5-15), an Ethernet transmitting element connected to the Ethernet switch(Fig.2, col.4, lines 5-67, col.5, lines 5-15), an InfiniBand receiving element to receive the data packet from the first InfiniBand switch, an InfiniBand transmitting element to receive the data packet and to transmit the data packet to the second InfiniBand node(Fig.2, col.3, line 16, col.5, lines 5-15, 44-45).

Kashyap however does not explicitly teach the data packet includes a destination indicate media access control (MAC) address; a detector to read the destination indicator MAC address and to compare the destination indicator to a known range of MAC addresses to determine where to transmit the data packet; a routing element to deliver the data packet from the detector to an InfiniBand transmitting element, wherein the InfiniBand transmitting element transmits the data packet to a second InfiniBand node if the destination MAC address is within the range of MAC addresses; and an Ethernet transmitting element to deliver the data packet from the detector to, the Ethernet switch if the destination MAC address is not within the range of MAC, addresses.

Mahajan teaches the data packet includes a destination indicate media access control (MAC) address(col.2, lines 37-46); a detector to read the destination indicator MAC address and to compare the destination indicator to a known range of MAC addresses to determine where to transmit the data packet(col.5, lines 18-30); a routing element to deliver the data packet from the detector to an InfiniBand transmitting element, wherein the InfiniBand transmitting element transmits the data packet to a second InfiniBand node if the destination MAC address is within the range of MAC addresses(col.5, lines 18-64); an Ethernet transmitting element to deliver the data packet from the detector to, the Ethernet switch if the destination MAC address is not within the range of MAC, addresses(col.5, lines 18-64).

Therefore it would have been obvious to one ordinary skill in the art at the time of the invention to modify the teachings of Kashyap to include comparing MAC addresses to known MAC addresses for transmission as taught by Mahajan in order to send data packets to the correct destination(Mahajan, col. 2, lines 28-67).

One ordinary skill in the art at the time of the invention would have been motivated to combine the teachings of Kashyap and Mahajan in order to provide a system to send data packets to the correct destination(Mahajan, col. 2, lines 28-67).

As per claims 4,10 wherein the detector and the routing element are within a single device(Kashyap, col.5, line 58-col.6, line 21).

As per claims 5,11,21,30, wherein the remote virtual network interface is virtualized by implementing microcode in a network processor(Kashyap, col.4, lines 30-58).

As per claims 6,12,22,31, wherein the remote virtual network interface is virtualized by implementing microcode in a set of integrated circuits(Kashyap, col.4, lines 30-58, Mahajan, Figs. 1-5,col.8, lines 44-60; inherently teaches integrated circuits since routers, switches, are being used). Motivation to combine set forth in claim 1.

### ***Response to Arguments***

Applicant's arguments with respect to claims 1,4-6,7,10-12,14,16,17,21-23,25,26,30,31 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

US 6456597 issued to Bare

US 6,157,651 issued to Meares et al

US 6,661,787 issued to O'Connell et al.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not


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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Backhean Tiv whose telephone number is (571)272-3941. The examiner can normally be reached on 9 A.M.-12 P.M. and 1 -6 P.M. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Backhean Tiv  
2151  
1/6/06

  
JASON CARDONE  
SUPERVISORY PATENT EXAMINER